

Medical Dean George Packer Berry of its being designed "in physiological terms." A *medical* library it is, in any case, and this book mirrors its grandness of thought and spirit.

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PRIMATES. COMPARATIVE ANATOMY AND TAXONOMY. Vol. 6, CATARRHINI, CERCOPITHECOIDEA, CERCOPITHECINAE. By W. C. Osman Hill, M.D., F.R.S.E., F.L.S., F.Z.S. New York, Interscience Publishers Inc. (John Wiley & Sons, Inc.), 1966. xxiii, 757 pp. \$45.95.

With Volume Six, Osman Hill's *Primates* definitively achieves monumental status. Subtitled, Comparative Anatomy and Taxonomy, the author clearly invites attention from these disciplines. The present review will attempt to examine some of the "fall-out," the functional aspects of the primates which the author has generously included in this and previous volumes. It can be stated at once that this aspect of *Primates* is exceedingly valuable, in that behavioral and physiological phenomena can be seen to peculiar advantage in the context of a formal and systematic presentation.

In his introduction to Ruch's *Bibliographia Primatologica* (1941) the late Dr. John F. Fulton enunciated the proposition "if not man, then the monkey," and expressed the conviction that primate biology in the future would become even more intimately bound up with teaching and research in the medical sciences. The 25 years that have elapsed have seen this wisdom and foresight vindicated to the point that the appearance of these volumes of Osman Hill is exceedingly timely. Functional studies of the primates in their own right and as paradigms of man began with the work of van Herwerden and Hubrecht at the turn of the century. A strong school associated with the names of Corner, Edgar Allen and Hartman sought to elucidate the nature of the sex cycle of the primate. An equally notable school was founded by Fulton himself in the use of primates for neurophysiological research. Meanwhile Yerkes, Zuckerman and the Sukhumi school inaugurated studies of primate behavior. Poliomyelitis made the use of primates mandatory for the laboratory study of infectious disease, and in numerous ways the advance of medicine is now firmly linked with the use of primate norms. Hill's *Primates* thus properly goes beyond the interests of those who might wish to establish the identity of a monkey pelt or the provenance of a fragment of mandible.

In retrospect, the first volumes of the series were devoted to the exotica of the Order: to forms like *Tarsius* which appear infrequently in western laboratories or zoos, but which, because of their zoological position have excited interest and controversy; to *Galago*, whose afficianados have generally been private collectors. Examples of the Strepsorhini and Haplorhini (Volumes I and II) can generally be seen in the larger zoos. Volumes III-V cover the Infraorder Platyrrhini, the New World monkeys: marmosets, howlers and spiders. Once rather neglected as biological material, the former, at least, is beginning to appear in laboratory colonies. The present volume is a general introduction, first, to the Infraorder Catarrhini,

the Old World Simian Primates, and second, to the Superfamily Cercopithecoidea, the Old World Monkeys. Considered in detail are the fossil Family Parapithecidae and the Subfamily Cercopithecinae of the Family Cercopithecidae, which includes the guenons. This volume is a curtain raiser, so to speak, and subsequent volumes will consider the Subfamily Cynopithecinae which includes those ubiquitous monkeys, the macaques, the baboons and the mangabeys. It is a curtain raiser because it contains a large amount of information about, and references to, these latter forms, which have provided the bulk of material generally encountered in laboratory experience. As a balance to this, the Cercopithecinae certainly contain some of the handsomest members of the entire primate circle: they grace the primate sections of our zoos, and some elegant pictures of them are to be found in this volume.

The all-too-brief historical introduction is a model of urbane scholarship and places the Catarrhines on the world stage as objects for wonder, for worship and for old wives' tales from the earliest recorded times. Almost maddeningly brief is the section on paleontology which carries the story of discovery of the "missing links" from Schliermacher (1820) to that of the Australopithecines. In passing, it may be noted that the bibliography contains items down to 1964; however, from internal evidence it should not be entirely relied on after 1962. As already mentioned, generous amounts of text relate to behavioral and functional considerations. In an ongoing work of this kind, a reviewer hesitates to note apparent omissions which may be repaired spontaneously later on. However, oddities and omissions, not to say mistakes, do crop up when the author departs from Comparative Anatomy and Taxonomy.

In cataloguing various Primate colonies, the author has no mention of the old established and important one at Sukhumi, USSR. Assertions about the existence of a primate breeding season continue to be confusing (p. 136). A Sam Goldwyn consensus is reached which "includes out" those authors who have observed such a season in the wild, as opposed to the situation in captivity. The sex swelling does not, and could not as stated (p. 134) involute in the first 24 hours of the luteal phase; in the baboon, for example, detumescence lasts a week, during which time water is steadily lost by the animal. Nor does menstruation occur "from the onset of the luteal phase" (p. 135), but rather from its termination. The period of adolescent sterility (up to the 5th year) given for *Macaca mulatta* seems unduly long (p. 137). The topic of vocalization is mentioned in several places, and one could have expected a reference to DuBrul's "Phylogeny of the Speech Apparatus" which gives an anatomical and functional analysis of voice in *Tupaia*, *Lemur*, *Cercopithecus*, *Hylobates* and *Homo*. While technical minutiae are a vast bore to one outside a field, the contents of the vaginal lumen of monkeys have *not* been much studied by the "smear technique." This is strictly for rodents. In monkeys the method used is Hartman's sedimentation of the vaginal lavage.

Osman Hill's prose is eminently readable and generally impeccable. Occasionally a sentence gets by: "Adrenals have been described in most genera of Old World Monkeys" suggests that there are genera which lack

adrenal glands. The photographs are excellent and sometimes, as in the Green Monkey group (Pl. XXXVI) and of *Macaca nemestrina* pulling the "pig-tail face" (Pl. I) are classic. These volumes enrich the primate literature and will be a growing asset in the expanding field of primate studies. Format and printing are alike superb.

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TUMORS OF THE THYROID GLAND. Edited by A. Appaix. New York, American Elsevier Publishing Company, Inc., 1966. xi, 468 pp. \$24.00.

This treatise is a compilation of papers presented at the Proceedings of the International Colloquium on Tumors of the Thyroid Gland, held in Marseilles. It was the purpose of such a meeting to assemble the world authorities in thyroid diseases regardless of, and most likely because of, their known prejudices. The study of thyroid tumors is exceedingly difficult. While any attempt to unravel this most confusing field would be considered worthy, the effort reflected in this publication is indeed commendable. At the time of presentation its effectiveness was undoubtedly impaired by the large amount of material and the number of languages involved. Only in this complete, translated edition can the maximum benefit be derived from an international colloquium such as this. The generous amount of Figures and data along with a very smooth translation certainly make for a degree of clarity and understanding that could not have been achieved when these papers were delivered. This series of papers does not comprise a textbook since it does not attempt to define its subject against a background of normal thyroid physiology and histology. Instead, the papers comprehensively cover the field of thyroid cancer as generally recognized by specialists. Supplementary subjects were also covered but in no manner allowed to detract from the principal topic.

The problem addressed was a clinical and epidemiological correlation between the histology and histochemical findings in tumors of the thyroid. Techniques are advancing considerably in these areas and certainly justify the attempts for current evaluation. The colloquium wisely prepared for conclusions that could be just as confusing and difficult as in previous meetings. This sensing of a need to look into biochemical and immunological approaches is apparent to the reader. As he studies this transition, with a moment of humor, there is the feeling that the old is giving way to the new: the old clearly defined by the classical students of science founded in Brussels, Lyons, Paris, Prague, and Marseilles; the new noticeably comprised of the few (less than eight of the approximate 100 invitees) Americans using more theoretical approaches. Regardless of the new or old, the total contribution, though limited, is an important one. The problem of thyroid tumors is still unsolved and will in all likelihood remain so without new approaches. This is an enlightening and interesting collection of papers. It is recommended for all students of thyroidology.

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